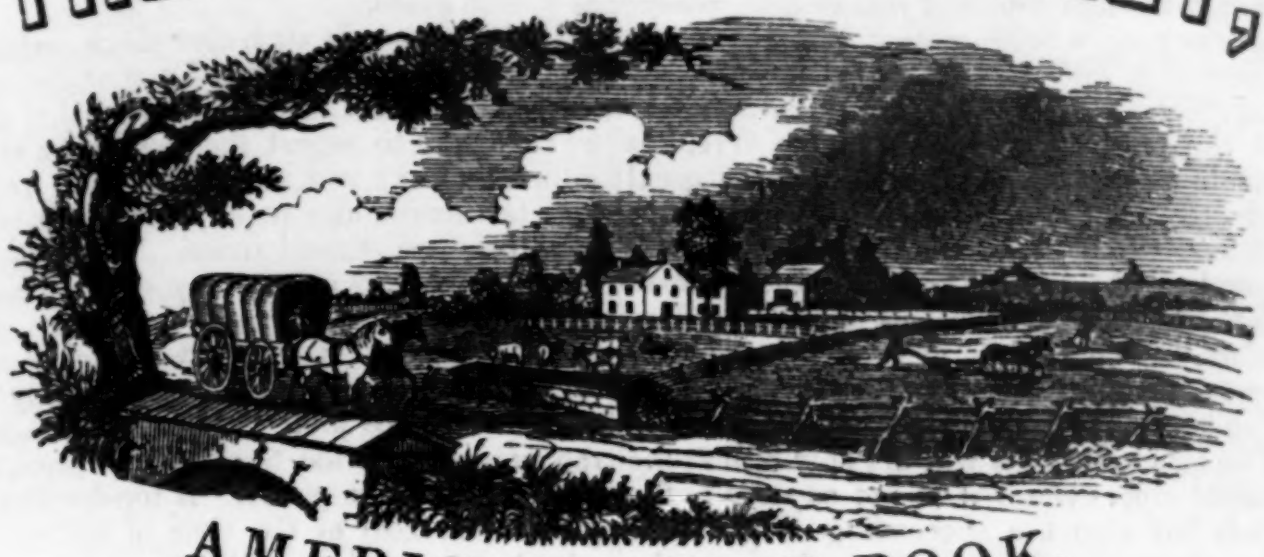
THE FARMERS' CABINET,

AND



AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—Liebig.

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BY JOSIAH TATUM,

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For the Farmers' Cabinet.

Cause and Preventives of the Rust in Wheat.

Mr. Editor,—The rust in wheat is the presence of fungi, which may be seen by the aid of a good microscope. The cause of these fungi, is the presence of free carbonic acid and ammonia in the wheat plant, in greater quantity than can be assimilated by it. About the latter part of June, and from that time onward till November, carbonic acid and ammonia are generated very fast, by the decay of animal and vegetable matter. Water possesses the power of absorbing immense quantities of these gases. I have not any work by me at present—being away from home—to see the exact amount, but I think it is stated that one single gallon of water will condense and absorb upwards of eight hundred gallons of ammonia. In the summer, after a drought of some considerable length, the rain of a small shower, or the rain of the first part of a heavy shower, is highly charged with these gases—and the heavy dews, too, are often very highly charged with them. The water of a slight shower, or of a heavy dew, after a short drought, coming in contact with the stalks of wheat, is absorbed by them, and the carbonic acid and ammonia become mixed with the juices of the plant. These gases, coming as they do, in greater quantity than can be assimilated by the plant, and the surplus, if great, so weakening the energies of the plant as to deprive it of the power of expelling them, remain in the pores or other wide cells and vessels. Now, if the seeds of the kinds of fungi that infest wheat are present, the extra carbonic acid and ammonia furnish their proper food, and they immediately germinate and soon grow to full maturity, bursting and splitting the stalk of the sickly wheat in order to get room for their development—thus disorganizing the tissue of the wheat stalk, stopping its pores, preventing the operations that should go forward in it, thereby killing the plant.

Now for the remedy. To prevent this carbonic acid and ammonia from injuring the plant, it is necessary that the carbonic acid should be neutralized, and the ammonia prevented from getting in contact with the wheat stalk in such great quantities—and, also, the stalk should be strengthened as much as possible against such attacks. There are many substances that may be made use of to attain these desirable objects. I will mention a few, and the method of applying them. Pulverize charcoal of any kind until

it is reduced to the size of marbles and less, then take stone lime and reduce it to powder by slacking it with water; mix equal portions of it and ground charcoal intimately together, and apply the mixture immediately at the rate of ten bushels to the acre. It would be well to put more than the usual quantity on those places where the wheat looks very luxuriant, and less than the usual quantity where the wheat is poor and slender. Or, take four bushels of good hickory ashes, or five bushels of good oak ashes, or more than five bushels of weaker ashes, to five bushels of ground charcoal to the acre. The ashes and lime will not only benefit the wheat crop, even if it is not exposed to the rust, but also the succeeding crop—while the charcoal will do good as long as the ground is cultivated and it remains there, as it never decays, and is always useful. It is the most valuable fertilizer that we have, and is worth more than its weight in gold. I could give you many instances of its wonderful—nay, astonishing—powers, but my limits here will not allow me. One bushel of salt of any kind—say salt from the beef, pork, or fish barrels, or the rock salt used by graziers—reduced to powder, and added to five bushels of ground charcoal and mixed intimately, applied to an acre, will be as efficacious, if not washed away by heavy rains, as the other preparations.

The soda of the salt, the potash of the ashes, and the lime unite with the carbonic acid, and render it unfit for the use of the fungi, and strengthen the wheat plant so as to enable it to assimilate the carbonic acid and ammonia—while the charcoal absorbs both the carbonic acid and ammonia, and prevents the wheat from becoming surfeited with them. It holds these gases subject to the action of the wheat, and if the wheat at any future time finds itself in want of carbonic acid and ammonia—if its roots be in contact with the charcoal, they will draw that held by it. Thus the charcoal performs two very important services, and hence its great usefulness.

Lime that has been air slacked, will not answer in place of that which is fresh slacked, as it has already become partially, if not wholly neutralized, by having already absorbed carbonic acid, and therefore cannot neutralize the carbonic acid which is injuring the wheat.

The proper time to apply the before mentioned preparations, is just about the time the wheat is in full blossom, as that is the time at which the surplus of carbonic acid begins to work the injury. The mode of application is to put them in a bag, and walking up and down the furrows, sow them as you do grain.

If the season is such that much carbonic acid and ammonia is formed just at the time the wheat is most liable to be injured, it may be necessary to repeat the application at an interval of, say two weeks or less. And a very bad season may require the applications to be repeated several times. These operations, however, will not only save the grain from rust, but will make fine, large, full heads of plump wheat, and will also be useful to the succeeding crops—particularly the charcoal. Care must be taken not to sow the preparations too thick in one place, for they may kill the plants. A top-dressing of ground charcoal at the time of sowing the wheat, harrowed in with the wheat, and rolled over with a heavy roller, will be found highly efficacious in preventing the rust. It should be put on at the rate of twenty-five bushels to the acre.

The preparations I have recommended are very efficacious in preventing the smut in wheat.

Chemico.

Roads, Cottages, Flowers, &c., in England.

The perfection of the roads in England, has been the theme of every traveller through that richly cultivated country. The travelling by coach on the great thoroughfares through the kingdom, has been greatly diminished since railroads have been constructed. In many parts of the kingdom, however, the coach is still in use, and some idea may be formed of the ease and comfort of that mode of travelling which was formerly the pride and boast of every Englishman. Over their level and smooth roads, it is certainly one of the most delightful methods of travelling *in fine weather*. A seat upon the box with the coachman, who is usually intelligent and free to converse with a traveller, and well acquainted with the history of persons and places of interest on his route, renders this a very pleasant method of seeing the country, and learning the incidents which interest a stranger. The coachman has nothing to do with the horses until the time arrives for starting. He examines the team, sees that all is right, mounts his box, and is off at the rate of ten miles an hour, which I found the usual speed on all their roads. When he arrives at the place for changing horses, his lines are thrown down, and he enters the public house, where he is the great man among the hangers on, and as he receives notice that all is ready, mounts his box again, and is off.

The roads usually wind round through the farms, bounded on each side, generally, by neatly trimmed hedges, with trees occasionally interspersed, presenting every few rods new views and interesting scenery, that are truly delightful. The roads are made with the greatest care, generally macadamized, and entirely smooth. They are much narrower than with us, usually through the country, only wide enough for carriages to pass. The custom in England is, for each team to turn to the left, instead of the right, as with us. Its advantages are apparent, as the driver setting on the right, has in view the vehicle which is approaching, and can more readily ascertain how far he can drive with safety. In making their roads great care is taken to avoid hills, they judging, I suppose, that it is not ordinarily much further to *go round a hill* than to go over it. Foot paths are usually made with care on one or both sides of the road. No danger is to be apprehended from swine, or other animals, as they are not permitted the enjoyment of that license, which seems to be their birthright in our free country. I have never witnessed them running at large in city or country, not even in sweet Ireland.

The cottages which you pass, are generally neat in their outward appearance, very frequently covered with climbing vines, and flowers usually in abundance in the small yard in front, and often in pots at the windows. The cottages are low, the roof frequently not as high as the top of the coach, and a full view of the interior is enjoyed, as they are situated close to the road. Every few miles villages are passed through,—but the term village, as descriptive of our American villages, gives but a faint impression of an English one. Instead of spacious streets, with painted houses of two or more stories, we find, as the road winds around through the narrow streets, small cottages and shops crowded together close to the street, frequently with thatched roofs, with brick or stone floors. A house or two, occupied perhaps by the rector or physician, are somewhat more aristocratic in their appearance. Many of the buildings are whitewashed, and covered with vines, and present, upon the whole, an interesting appearance, but little of the comfort of one of our villages. They appear as ancient, many of them, as their country, and I presume little change has been made in them for centuries.

England truly is the land of flowers. They are to be found everywhere. The markets are filled with them. You meet them in the streets carried about by females and children for sale, and everybody, from the poorest up to her majesty, have a bouquet of flowers in the button hole or about the person. In the omnibus coach, railroad cars, on the steamer, on change, in the store—in fact, everywhere, they are to be met with. 'Tis delightful thus to witness their taste for flowers. It adds much to the pleasure of every one, and when it can be obtained at so cheap a rate, it is certainly desirable to cultivate a taste for them.

The loads which a team can draw over their roads are nearly twice as heavy as could be drawn over ours with the same power. It will require time and care to bring our roads into such a state as to resemble roads here. It would be well, I think, to begin to approximate to the like condition. Had the labour which has been so unskilfully expended on our roads for the last twenty years, been laid out in macadamizing them, we should, on all our principally travelled roads, have had them as good as the roads are here. It is hoped that improvement, in this respect will not much longer be delayed.—*Cultivator.*

Profits of Farming.

J. G. CHADSEY, of Wickford, R. I., states to the officers of the Rhode Island Society for the encouragement of Domestic Industry, that several years ago he purchased thirty-five acres of poor land, for which, it being near the village, he paid the large sum of three thousand and fifty dollars. Only twenty-five acres of it are "tillageable, including three acres of meadow not ploughed. The remainder is made up of hills and holes, marsh, and beach, with a small strip of wood land." The arable land is described as uneven, with a gravelly soil, much encumbered with small stones. It had been much worn down by repeated croppings without manure. He let it on shares, but got such poor returns that he was sick of his purchase. Finding that he could neither sell nor rent it, he came to the conclusion to try farming himself, though he had "*done nothing at it for nearly forty years;*" but as a "substitute for experience," he says he took an "*agricultural paper.*" He began cultivating it himself in 1840. He divided the tillage land into six fields, "from three to four acres each, a new one to be taken up every year, and after taking off three crops, let it lie three years in grass." About two were appropriated to root crops and garden vegetables, which are ploughed every year.

His success has been such, that land, which seven years ago, would not rent for four per cent., *now pays twenty per cent., after deducting all expenses.* He makes

the following statement in regard to the products and profits of his farm for the year 1846:

10 acres mowing, 19 tons hay, at $12,		$228 00
3 acres corn, 124½ bushels sound, at 80 cents, and 9 bushels offal, at 40 cents,		103 20
Corn fodder, $25, and pumpkins, $4 50,		29 50
3¾ acres rye, 77 bushels, at 80 cents, and straw sold, $24 81,		86 41
2¾ acres potatoes, 348 bushels, at 37½ cents., and 50 bushels small, at 20 cents,		140 50
367 bushels onions, at 50 c.	$183 50	
836 do. carrots, nearly all sold at 19 cents,	158 84	
48 do. parsnips, do., at 33⅓ c.	16 00	
6 pounds onion seed, and 3 pounds carrot seed,	8 00	
Peppers and sage sold,	41 88	
Produce of 1 acre and 125 square rods,		408 22
½ acre summer vegetables, mostly used in family—sold,		7 69
Salt grass sold, standing,		24 00
Milk sold,		47 39
Rent received for two gardens,		6 50
Milk, butter, and summer vegetables used in family,		35 00
		$1,116 41
Expenses.—Paid for labor	$182 62	
Board of labor,	90 00	
Molasses for drink, 20 gallons, at 30 cents,	6 00	
Manure purchased, and materials for the same,	81 46	
Seeds of different kinds,	28 77	
Wear and tear of farming utensils,	25 00	
Taxes,	11 81	
Labor done by himself,	50 00	
Cost of cultivation,		475 66
Cost of land, $3,050; profits 20½ per cent. for use of land,		640 75

Mr. Chadsey states, that he hires all his help except the "little" he does himself. He states that he made 917 pounds of pork, and 560 pounds of beef, which are not included in the account, as they were fattened on part of the produce before estimated. His stock, he says, consists of two cows and a horse. He buys manure from the village. With the horse he does all the "team work," except breaking up the land. His products for the year 1845, amounted to $913; his expenses were $368; profits $545.—*Cultivator.*

Culture of Asparagus.

Many farmers do not succeed well in their attempts to raise asparagus, from the fact that they do not begin properly, or put it in the right kind of soil. It is a saline perennial plant, and grows in stony or gravelly situations near the sea in many places, and is cultivated to a great extent in the neighbourhood of Paris, and grows to a large size in the vicinity of Ulm and Augsburg on the banks of the Danube, where the soil is a calcareous sand, some three or four feet deep, and the subsoil always saturated with water. Many of the Steppes in the South of Russia and Poland, in the salt region, are covered with this plant, which is eaten by horses and oxen as grass.

Premising that all seeds were originally planted in soils most natural to their vegetation and growth, we learn from the above facts, that two ingredients, viz: sand and salt, are at least necessary for the propagation of this plant: hence in preparing my bed five years ago for the seed, I selected a warm sunny spot: and mixed in freely, sand and coarse manure, saturating it with brine to the depth of two feet. On the top I put three inches of fine loam and vegetable mould: planting my seeds—after steeping them in warm water for twenty-four hours—in rows, the seeds about eight inches apart, and the rows about a foot distant from each other. In the fall of each year, I mix fine manure with the surface soil, and cover the bed with coarse manure from my horse stable; and in the spring remove the coarse part of it and strew on one to two quarts of fine salt, and as soon as the weather becomes warm and dry, irrigate freely every evening. The third season we cut freely for the table, and last year my bed of 5 feet by 30, furnished our table every day, from the middle of May to the last of July, when it was in part allowed to stand and ripen, that the roots might not become exhausted.—*Farmer and Mechanic.*

Honesty the Best Policy.

A farmer called on Earl Fitzwilliam to represent that his crop of wheat had been seriously injured, in a field adjoining a certain wood, where his hounds, during the winter, frequently met to hunt.

He stated that the young wheat had been so cut up and destroyed, that in some parts he could not hope for any produce. "Well, my friend," said his lordship, "I am aware that we have frequently met in that field, and that we have done considerable injury; and if you can procure an estimate of the

loss you have sustained, I will repay you." The farmer replied, that anticipating his lordship's consideration and kindness, he had requested a friend to assist him in estimating the damage, and they thought, as the crop seemed quite destroyed, £10 would not more than repay him.

The Earl immediately gave him the money. As the harvest, however, approached, the wheat grew, and in those parts of the field that were trampled, the corn was the strongest and most luxuriant. The farmer went again to his lordship, and being introduced, said, "I am come, my lord, respecting the field of wheat adjoining such a wood." He instantly recollected the circumstances. "Well, my friend, did I not allow you sufficient to remunerate you for the loss?" "Yes, my lord, I have found that I have sustained no loss at all, for where the horses had most cut up the land the crop is most promising; and I have therefore brought the £10 back again. "Ah!" exclaimed the venerable Earl, "this is what I like—this is what ought to be, between man and man." He then entered into conversation with the farmer, asking him some questions about his family—how many children he had, &c. His lordship then went into another room, and returning, presented the farmer a check for £20. "Take care of this, and when your eldest son is of age present it to him, and tell the occasion that produced it."

We know not which most to admire, the benevolence or the wisdom displayed by this illustrious man; for while doing a noble act of generosity, he was handing down a lesson of integrity to another generation.

In locating the line of the White Water Canal a few years since, it passed of course, over much valuable property adjoining Cincinnati. Some of this was materially injured, in consequence of rendering parts of the same estate inconvenient of access to the main property, and in all cases the value of the ground itself, furnished no slight claim for losses thus sustained. Assessors were appointed by the Court of Common Pleas, to adjudge injury, and allow damages consequent.

Among others, General Rees E. Price had a large slice taken out of his valuable property, just over mill creek. These were awarded accordingly, and in General Price's case amounted to thirteen hundred dollars.

Two or three years elapsed, which served to put the White Water Canal in operation, and determine its value to the neighbours; and the General began to entertain doubts whether the benefits he should derive from its existence, were not at least equal to the damage it might create. He sat down accordingly to calculate, and to reflect; and the result was, that he paid back the amount he had received from the Canal Company to its president, alleging that he was convinced he had no right to it.

Even those who are incapable of imitating such illustrious integrity, must admire the magnanimity of spirit it displays.—*North American.*

CULTURE OF THE CUCUMBER.—I will state a fact relative to the planting of cucumbers, which came under my observation, and which is worthy of being known. I shall at least give a further trial myself of its reality, though I cannot conceive there is a doubt remaining on the subject. Last spring, a friend of mine and myself were planting cucumbers at the same time. I was planting mine, as is usual, in gardens, by mixing a small portion of stable manure with the earth, and raising the hill an inch or two above the surface of the ground. Observing it, he jocosely remarked, "Let me show you how to raise cucumbers." Never having much luck in raising them, I cheerfully agreed to his proposition. He commenced by making holes in the earth, at the distance intended for the hills, that would hold about a peck—he then filled them with dry leached ashes, covering the ashes with a very small quantity of earth. The seeds were then planted on a level with the surface of the ground. I was willing to see the experiment tried, but had no expectation of any thing but a loss of seed, labour and soil. But imagine my astonishment,—notwithstanding a drier season was never known, and almost a universal failure of garden vegetables,—when I beheld vines remarkably thrifty, and as fine a crop of cucumbers as any one could wish to raise, and they continued to bear for an unusually long time. I will not philosophize on the subject—but say to all, try it; and instead of throwing your ashes away, apply it where it will be of use, and you will reap a rich reward.—*Ohio Farmer.*

E. BURRITT in his Christian Citizen, says, "Western Farmers! what are you going to do for the Old World next year? Are you going to feed them, or let them die of hunger? If you cannot engage to grow *one thousand millions* of bushels of Indian corn for them the coming season, and send it over in season, they will come after it themselves, and your prairies will swarm with them, as with an ocean of bull frogs. So be up now, and at it. There will be no potatoes raised here this season, and you must plant corn for half the world."

A Wash for Fruit Trees.

A good deal has been said about the best application for this purpose—one recommending lime, another a solution of soft soap, and another a solution of potash. All these are very excellent, but sometimes fail of being applied, from an unwillingness in the farmer to drive to the village in search of them, or from the false economy which regards the slight expense of procuring them. If there is anything equally beneficial, and within every one's reach, we think it should be substituted, as doing away with the last apology which a lazy man can give for neglecting his trees, and we think that this article may be found in wood ashes, of which every farmer has an abundance. I have tried the solution of black salts, the application of soap, and also that of wood ashes; for large trees with rough bark, the latter is quite as good, if not better than the former. A wash of ashes and water can be made as strong as you please, and if put on some dry day, a good deal of the ashes will remain adhering to the bark, which the subsequent rains wash into the crevices. This wash if applied in the summer time, will, while the ashes remain on the tree, make it offensive and disagreeable to the insects, and deter them from lighting on it; also ultimately makes the bark smooth and healthy.

By those who wish for healthy and productive orchards, too much attention cannot be given to the bark of their trees. We frequently meet with forest trees whose interior has been almost entirely destroyed by fire or decay, and which yet seem healthy and flourishing by virtue of a vigorous bark; and any one who has tried the experiment must have observed how both shrubs and trees, that have become enfeebled by age and neglect, can be rejuvenated by attention to their exterior condition. We don't mean to recommend to any to procure old or large trees for his orchard in place of young ones, but if he has an old apple tree worth improving, by removing the *outside* of the whole bark on it late in the spring, he will find that he has given to the tree much additional vigor. Upon smaller trees and shrubs, a liberal scraping with a trowel and an application of ashes and water will have the same effect.

When trees grow in grassy land, a pretty good way to keep them from being sod-bound, is to remove in the fall the sod two or three feet around the tree, and on this turn about half a wheelbarrow full of manure; the winter rains and snows will wash the strength of it to the fibrous roots. In the spring the manure may be scattered about under the tree, and in lieu of it, substitute leached ashes. This, beside being beneficial to the tree, prevents the grass from approaching the stem of the tree during the summer; and what grass grows over the ashes is easily removed in the fall.

In conclusion we would say, that the farmer who curries his horse twice a day, finds himself abundantly rewarded for his toil, in the improved strength and appearance of his animal; why don't he *curry* his trees once or twice a year, and reap a larger reward for the labour and the capital thus invested?—*Minors' Journal.*

Agricultural Survey of Washington Co., N. Y.

We take the following from the Albany *Evening Journal.* Our friends in New York are certainly enterprising and spirited, and we trust this attempt will be attended with valuable results. We are glad to see Dr. Fitch engaged in this undertaking.—Ed.

We learn that the N. Y. State Agricultural Society has it in contemplation, to have a full and accurate Agricultural Survey of the different counties of the State, taken so fast as its means will enable it to proceed in a work of this character. The Surveys of the several counties of England and Wales, completed several years since by the British Board of Agriculture, will form the model on which this work will be in a measure conducted. The present flourishing state of the art of agriculture in England, it is well known, has resulted, to a considerable extent, directly from the investigations made and the information acquired by that Survey; and a similar work in this country can scarcely fail to lead to similar auspicious results.

We regard it as no small honour, that Washington county has been selected by the State Society, as the most appropriate locality in which to commence this important work, and that one of our own citizens, Dr. Asa Fitch, has been commissioned to execute it. Such a work, in such hands, we confidently anticipate will result in a report that will redound to the fame, alike, of the writer, of our county, and of the Society under whose patronage it is made. We learn from Dr. F. that he contemplates visiting the several parts of the county the present season, and ascertaining from personal inquiries and observations, all the details of the art of agriculture, &c., as it is practiced at the present day by our most successful and intelligent farmers. That the exact plan and scope of the proposed work may be more definitely known, we take pleasure in laying before our readers

the instructions that have been given to guide him in his inquiries:—

Agricultural Rooms, Albany,
May 12th, 1847.

Asa Fitch, M. D.,—Dear Sir: You have been selected to make an Agricultural Survey of the county of Washington—to collect accurate information in relation to the state of its agriculture, and every subject connected with it—to suggest means of improvement—and to make report with as much exactness as circumstances will admit.

I enclose you a plan of the proposed Survey, adopted by the Executive Committee of the N. Y. State Agricultural Society, which will direct your attention to such inquiries as are deemed most important. Your own experience will guide you in the fulness of examination, and report under the various heads, some requiring from their importance much more extended notice than others.

The reports of Natural History, which have been prepared under the direction of the Legislature, will aid you materially in some branches of the Survey, as many of the inquiries submitted can be answered probably through them, and without as minute personal examination as would otherwise have been necessary.

As this is the first Agricultural Survey which has been undertaken by the State Agricultural Society, and upon its successful result will depend whether the Survey be continued in future years to other counties or not, it becomes of the highest importance that the work should be done with such particularity and care, as will secure a complete and finished return. It is desirable that the survey, when completed, should be embraced in an octavo volume of some 200 pages—but this will depend in some measure upon the extent to which it may be lengthened by subjects of importance which may require particular notice.

The Executive Committee rely upon your ability to perform the work in a manner that will be creditable to the Society, and so as to be an enduring monument to yourself in the future history of the Agriculture of the State.

I am very respectfully, your obedient servant, B. P. Johnson,
Secretary N. Y. State Ag Society.

Plan of the Proposed Agricultural Survey of the County of Washington.

1. Geographical and topographical description of the County.

2. Geological features, minerals and fossils, nature of the soil, distinguishing that composed of the "northern drifts," or of transported materials from that produced from the rocks of the immediate neighbourhood.

3. Length of time the soil has been under cultivation; the original growth of timber, and the time it was first cut off.

4. Date of the first settlement of the several parts of the county, and the origin and general character of the settlers.

5. Condition and progress of agriculture from the first settlement to the present time, showing what have been the improvements and causes which have produced them; what have been the staple crops, the mode of their cultivation, and as far as may be practicable, the actual profits of each, at different periods.

6. Present state of agriculture; the several crops cultivated, their respective yields and market value. Also, all industrial pursuits connected with farming, such as the manufacture of maple sugar, how managed in its preparation, &c.

7. Adaptation of crops, as grains, grasses, and roots, to different soils; showing the arrangement which in this respect has been found by experience to be most judicious and profitable.

8. Fruits and fruit trees; having particular reference to the adaptation of the various species to the different soils—mentioned under head No. 2.—and how far the productiveness, health, or longevity of the trees are affected by the nature of the soil, &c.

9. Weeds and pernicious plants, describing those most injurious, whether indigenous or introduced, and giving the most approved modes for their eradication.

10. Insects, describing those which are prejudicial to the farmer, and noticing the most effectual means of preventing their ravages.

11. Implements; having regard to any peculiarity of construction, and noticing any improvements, which may have been adopted in their form, mode of manufacture, or uses.

12. Live stock; horses, cattle, sheep, and swine; showing the numbers of each of these classes kept in the county, their diseases and mode of curing them; the different breeds, and as far as may be, the relative value of each for different purposes; the relative value of horses and oxen for labour on the farm; and any facts in regard to the profits and most economical management of poultry of different kinds.

13. Feeding and fattening animals; having regard to the most profitable modes, and the relative value of different kinds of grain, roots, apples, pumpkins, grasses,—both in their green and dry state—or any plants for feeding labouring animals,—whether horses

or oxen,—milch cows, or for fattening cattle, swine or sheep.

14. Dairies and dairy produce: showing the quantity of butter and cheese produced, the quantity per cow, the best modes of making these articles, and the kind of pasture and food, as well as the general management, which is found most profitable.

15. Wool growing; showing the number of sheep in the county, the breeds, the quantity of wool produced per head, the value per pound of the different kinds of wool, its preparation for sale, and where sold; the number of sheep pastured per acre on different soils; time required for winter feeding; quantity of hay required for carrying a given number of sheep through the winter; most economical mode of winter feeding, whether with hay alone, or with any other fodder, and whether any and what kinds of grain or roots, and in what quantities, and in what manner, are fed to sheep.

16. Manufactures; the kinds carried on in the county, their extent, and the effect they have had on the farming interest.

17. Examples of good management or success in farming.

18. General profits of farming; showing the returns for capital invested.

19. Education; the state of schools, and whether any instruction having a particular reference to agriculture, is given in schools and academies, and with what success or advantage.

20. Suggestions for improving the condition of agriculture.

21. Zoology of the county—at least a notice of those indigenous quadrupeds, birds, reptiles, fish, &c., that are serviceable or detrimental to man.

Horticultural Premiums.

The Pennsylvania Horticultural Society, offers the following premiums at its stated meeting on the 20th inst., at eight o'clock, P. M.

Grapes.—For the best, three bunches, of a black variety to be exhibited, $3.
For the second best, do. do. do. $2.
For the best do. of a white variety, do. $3.
For the second best do. do. do. $2.

Apricots.—For the best, two dozen named to be exhibited, $2.
For the second best do. do. do. $1.

Plums.—For the best, one dozen to be exhibited, $2.
For the second best do. do. $1.

Figs.—For the best, one dozen to be exhibited, $2.

Pears.—For the best, one dozen named to be exhibited, $2.
For the second best do. do. do. $1.

Apples.—For the best, half a peck named to be exhibited, $2.
For the second best do. do. $1.

And at the meeting on the 18th proximo, the following premiums are offered:

Grapes.—For the best, three bunches, of a black variety to be exhibited, $3.
For the second best do. do. do. $2.
For the best do. of a white variety, to be exhibited, $3.
For the second best do. do. do. $2.

Nectarines.—For the best, one dozen named to be exhibited, $2.
For the second best do. do. $1.

Plums.—For the best, do. do. $2.
For the second best, do. do. $1.

Peaches.—For the best, two dozen to be exhibited, $3.
For the second best do. do. $2.
For the third best do. do. $1.

Pears.—For the best, one dozen to be exhibited, $2.
For the second best do. do. $1.

Apples.—For the best, half a peck to be exhibited, $2.
For the second best do. do. $1.

For the Farmers' Cabinet.

Timothy Grass.

Phleum Pratense.

This valuable grass, is, I believe, generally considered as a naturalized foreigner. An accidental examination of an agricultural work printed in London in 1764, entitled "*Museum Rusticum et Commerciale*," seems to throw some doubt on this point, and to make it common to both England and America. It is there spoken of as delighting in wet or moist soils, and having a root like couch grass; and for this reason forming a strong covering for bogs, and other wet places. It is also spoken of as by no means a good pasture. Nothing is said of its qualities for making hay, and its cultivation is not recommended on account of the difficulty of eradicating it when once in possession of the soil. A Mr. Rocque, who seems to have been an experimenter in grasses, in a communication to the same work, uses this language: "As to Timothy grass, it grows prodigiously quick. Lord Robert Manners brought me a root from Lincolnshire, that grew on a quarry, the stem of the grass was about two feet and a half high, the seed was ripe and larger than that brought from Virginia." From this it might be inferred, that

at that time, December, 1763, Timothy grass was known rather as an American, than an English, vegetable. Stillingfleet, in his observations on grasses, speaks of it as being brought from North America about forty years before he wrote, which was in 1811. It was introduced into English agriculture with strong recommendations, but, as he says, was soon rejected, being found coarse, and of little value for any purpose. Curtis, in his "Practical Observations," gives it precisely the same character, but makes no allusion as to its "*habitat*," or whether it be English or American. Sinclair, in his "*Hortus Gramineus Woburnensis*," expresses other opinions. He thinks it of great value as a "constituent of any mixture of grasses for permanent pasture," and also for hay. From him we have a corroboration of the "*Museum Rusticum*," that it was first made known to English agriculturists in 1763, by a gentleman who took it from this country. Parnell, in his late work on grasses, confirms this idea. Our own Botanists, with the exception of Eaton, appear to think it an emigrant foreigner, somewhat starved and ill treated at home; but under the broader and more flattering encouragements of our free institutions, richer lands, and stimulating climate, transformed into a more important and imposing production. The authorities quoted above, lead to the belief that it is a "native," and that its value in agriculture was first made known from this country, and the reputation it has gained and continues to have, first established here.

A. L. Elwyn.

Philadelphia, June 21st, 1847.

Johnson, in his Encyclopedia, says "this is a great American grass, and is called Timothy, from Mr. Timothy Hanson, who first introduced its seeds into Maryland:" and we all know that for hay, it is one of our most valuable grasses.—Ed.

From the Cultivator.

Disease among Neat Cattle.

On a fine morning in June, 1838, a neighbour of mine requested me to examine the bodies of two fat steers which he had just found dead in his pasture field, and which he suspected had been poisoned. He said that having driven one from the field late the previous afternoon, he had observed the two that were now lying dead before us, quietly grazing about, apparently in perfect health. As their hides had been removed, my attention was first attracted by the bloodless appearance of the flesh, like that of well dressed butchers' meat. There was no offensive smell, nor any distension of the abdomen. On laying open that cavity, no gas escaped, and the stomach, or maw, the part first exposed, presented a perfectly healthy appearance. On cutting into this organ, it was found well filled with grass, which had a very fresh and natural appearance, as if the animal had fed in perfect health until within a few minutes of its death. On raising up flaps with the knife, a thin pellicle was seen to detach itself by its own weight and that of the grass adhering to it, leaving the villous coat of the stomach perfectly clean and apparently healthy. The maw being now removed, brought into view the liver, the spleen, and small intestines. Hitherto everything had presented nearly a natural aspect, but this was now no longer the case. The liver, indeed, appeared healthy, with the exception of a somewhat unnatural paleness, but the spleen was much distended with black blood, and the small intestines were found filled, entirely filled with the same fluid! So intensely did this dark coloured blood show through the thin coats of the bowels, that the bystanders mistook it for mortification; but after letting out their contents the membranes assumed their natural colour. It seemed that all the blood in the body had found its way into the bowels, and this view of the matter was strengthened by examining the viscera of the chest. The lungs were very pale and bloodless, and upon slitting open the heart across the septum, so as to lay open both ventricles; the right was found to exhibit some bloody stains, but the left was as clean as if it had been wiped out with a wet cloth. The animal had evidently died of bleeding, and that without the escape of a drop of blood from the body. It had probably fed until dark, wholly unconscious of its impending fate, and then quietly laid itself down to sleep the sleep of death. Nearly all the blood in the body, by some unknown process, had been suddenly transferred from its natural receptacles into the intestinal tube; and so suddenly had this been accomplished, and with so little previous indisposition, that all the animal functions had been performed in apparently the most healthy manner until within a few moments of dissolution. But *how*, or by what channel had the blood been so transferred, was a question for the anatomist. By what unknown, what miraculous process had such a state of things been brought about? How could the animal live until the blood-vessels, and even the heart itself could be entirely emptied? No butcher ever accomplished a feat like this. Slit open the heart of the most thoroughly bled animal from the slaughter house, and it will be found to contain large clots of blood. No human means can sustain life until the heart

squeezes out the last drop of its contents. No poison known to man—no chemical knowledge, however profound, could concoct a poison capable of producing a death like this? To Him alone who created, it is reserved to slay in a manner so wonderful.

It may well be supposed that I felt a deep interest in this strange discovery, and lost no opportunity in its further investigation. Many deaths of the same kind occurred in the town of Rye that season, but I could learn of only one instance in which any indisposition was noticed before death. Most of the animals must have died in the night, as they were found dead in the morning, without having exhibited any evidence of disease the previous day. One alone was seen in the day time for a few minutes staggering about, but it soon settled upon the ground and quietly expired. All the examinations made that season, presented precisely the same appearances.

There was the same bloodless appearance of the flesh, the absence of fetor and gaseous distension of the abdomen; the same fresh and natural condition of the herbage in the stomach, as if the animal had fed until the last hour of life; the intestines presenting the same dark purple appearance, in consequence of the whole tube, through all its doublings and convolutions, being entirely filled with blood; while the heart, in every instance, was found entirely empty.

I heard nothing more of this disease for a space of eight years, until last summer, (1846,) when a gentleman one morning requested me to examine the body of a cow he had just lost, in the hope that I might be able to detect the poison with which, as he supposed, she had been destroyed. He stated that she had been brought from the field in the morning with other cows for the purpose of being milked, and was at that time apparently as well as any of them. When about half milked she stepped away and laid down under a tree; the milker coming into the house, related the fact, and complained that she could not get her up again. On going out himself he found her dying, and she actually expired within half an hour from the time of laying down. This statement at once induced suspicion that the malady of 1838 had returned again, and I described to him minutely the appearances then met with, and ventured to predict that his cow would be found in the same condition; in which case, I remarked, the idea of poison by any human agency, cannot for a moment be entertained. It is only necessary here to add, that the examination confirmed the prediction in the most minute particulars.

Hitherto this disease had been confined entirely to neat cattle, and as far as I knew, had appeared only in the summer months. In February last, however, a friend called to request the chemical examination of the stomach of a young heifer that had just died, saying that he had previously lost several cattle in the same way, and that his neighbours, all suspecting poison, had urged him to have the matter thoroughly investigated. In answer to a question of mine, he stated that he had lost ten in all, seven of them in the warm months of summer, and three the present winter; and that he had never found one of them sick; the first intimation of his loss being that of finding them dead in the field, with but one exception, and in that the animal was breathing its last when discovered. On cutting open the specimen he had brought with him, it disclosed the peculiar appearances described as belonging to this disease, and I stated to him the discoveries previously made, and that on his return home, a further examination would probably show him the heart destitute of blood, and the intestines filled with it; and that he might rest assured that no human agency could have had any share in the matter. This last suggestion seemed to be very acceptable to him, for the suspicion of having an enemy about him base enough to destroy his property in this manner, was exceedingly annoying. And here it will be proper to point the reader's attention to the fact, that every application for post-mortem examinations hitherto mentioned, had been based upon the suspicion of poison; a suspicion far more harassing and vexatious to generous and worthy minds than the loss of property itself; and it was a hope of being able to dissipate this delusion, so fraught with mischief to society, and so liable to disturb the harmony and good feeling of every neighbourhood where it might be entertained, that first suggested the idea of writing this history. But the singular and novel features of the disease itself, and the deep interest the farmer has in its further investigation, may perhaps give it a still higher claim to a place among the agricultural notices of the day.

It was the intention of the writer to compare the peculiar features of this disease with the symptoms detailed in the history of past epidemics among domestic animals, and likewise to offer a theory in explanation of the strange physiological fact alluded to in describing its post-mortem appearances; but the length to which this article has already arrived, must defer this intention to a future period.

Thomas Close, M. D.

Portchester, Westchester Co., March, 1847.

From the American Agriculturist.

Comparative Weight of Pork and Bacon.

On the 16th of December, 1846, I bought twelve hogs, weighing 272, 245, 240, 237, 230, 229, 223, 212, 212, 206, 198, 189, making a total of 2,693 lbs. at $1 87½ per 100 lbs. making $50 50.

According to the market price in Chicago this was the fair value, merely deducting price of hauling. These cut up next day made

24 handsomely trim'd hams,			weighing	632 lbs.,	to cost say	2½ cts.,	$14 22
24	do.	shoulders,	do.	580 do.	do.	2 do.	11 60
24	do.	sides clear of bone,	do.	668 do.	do.	2½ do.	16 65
Leaf, lard, and trimmings of belly, &c.,			do.	330 do.	do.	3 do.	9 90
Trimmings of lean meat, clear of bone, for sausage, 51, it will make							$52 37

Or $1 87 more than the whole hogs cost, or 2,261 lbs., including the sausage meat at 2½ cents a pound, it will exceed the cost 37 cts.

Then I had the remainder as follows:

12 joles	106
Back bones and ribs	158
Pates and souse	125
Loss in cutting up	43
	2693

I take no account now of anything but the hams, shoulders, and sides. For cutting and curing I have charged my own time.

1 day cutting up and salting (including board)	$1 25
1 day hired man assisting	62
2 lbs. saltpetre, 37; 96 lbs. N. Y. salt (1¼ bushels) 96 cts.	1 33
Dec. 30, work overhauling and resalting, 25 cts.; 32 lbs. salt, 32 cts.	57
Jan. 16, 1847, preparing and hanging up meat to smoke	1 25
April 2, labour of weighing bacon	25
	$5 27

After smoking and drying from January 16th, to April 2nd, it weighed as follows:

24 hams	571,	loss 61,	632	original weight.
24 shoulders	534,	do. 46,	580	do.
24 sides	636,	do. 32,	668	do.
	1741	139	1880	

This, at three cents a pound, will exceed the cost of the hogs, $1 73.

Any person can, however, fix his own price upon each part, and by taking comparative weights make his own calculation and estimate of profit and loss. The weights were all carefully taken by my own hands, with the same steelyards. The hogs were well fatted upon corn. The price of pork last fall was low. The fair price of the bacon now, I think, is seven cents on an average.

But as "one swallow don't make a summer," I will give another table, so that a comparison can be made with these and the former one. January 13th, 1847, I killed seven hogs, weighing 331, 235, 233, 222, 173, 167, 150,—the three last pigs,—and at same time received from a tenant the half of two others, that were poorly fatted, which weighed 237 and 186, making my half 212, and the total 1723 lbs., which at the same price as the other lot, $1 87½ per cwt., would make $32 30. These cut up the next day were as follows:

16 hams	413
16 shoulders	334
16 sides	400
Leaf, lard and trimmings	262
Sausage meat and tail pieces	63
	1472
Joles	78
Back bones and ribs	80
Pates and souse	80
Loss in cutting	13
	1723

The per centage of loss in cutting up this lot is less than the other. This is partly owing to being better dressed.

Weight smoked	370	loss, 43	413
do. do.	314	do. 20	334
do. do.	368	do. 32	400
	1052	95	1147

This at three cents, falls a little short of the price fixed as cost, while the other lot at the same rate exceeded it. This is owing to the small hogs in this lot. The charges against this lot are for

75 lbs. of salt	75
¾ do. saltpetre	14
Cutting up and salting,	1.00
Overhauling and weighing	36
	$2 25

No matter what the price of fresh pork is, if the farmer is sure that he could sell the bacon for double that price, he will find it profitable to salt, instead of selling in the hog. For the lard, sausage meat, joles, ribs, &c., will more than pay the cost and trouble of curing, and then he will save about 40 per cent., in the weight of hauling to market.

I should like to see similar calculations upon putting up pork in barrels.

Solon Robinson.

Crown Point, Lake co., Ia., April 25th, 1847.

Potatoes, Beets, Carrots, Parsnips.

Of these several crops I see nothing peculiar in the cultivation in Great Britain, which would require me to treat them at any great length.

The potatoes brought upon the table are, in general, of a much better quality, drier, and more mealy, than those grown in the United States. The potatoes grown on new land, however, in the Northern States, are excellent; and the potatoes brought to market from the northern parts of Maine, and from Nova Scotia, are not excelled by any which I have met with. Within my own observation and experience, likewise, I have found that the finest seed potatoes from this country, planted in the United States, with the exceptions above referred to, have, after the first year, deteriorated, and become conformed to those usually planted in the country. It is demonstrated, therefore, to my mind, that new lands yield potatoes of a better quality than lands which have been long under cultivation; and that a low temperature and damp climate, such as are found in the northern parts of Maine and the British Atlantic provinces of North America, are favourable to potatoes, while in hot and dry climates the quality of the vegetable is inferior.

Potatoes are almost invariably planted here in drills or furrows and thirty inches apart. The furrow is first opened; the manure laid in it; the potatoe planted; and the land reversed by the plough, so as to cover the seed. They are then, just after appearing above ground, often harrowed; and after getting to some height, the harrow, or cultivator, is passed between the rows; and they are earthed up with a double mould-board plough, or by a single plough passing twice in the furrow. When ready to be dug, or, as it is here termed, *lifted*, a double mould-board plough is passed down once, or a single plough twice, through the row of potatoes; those are picked up which are thrown out; and then the whole field is thoroughly harrowed, which brings the remaining potatoes to the surface to be gathered.

Two or three points seem to be well established here; first, that in planting, it is better to use whole than cut sets; that, when they are cut, the seed end of the potatoe is more productive than the opposite end, and while the former is used for planting, the latter may be saved for food; and lastly, that the crop is considerably increased by early plucking off the blossoms. I have already described the lazy-bed mode of cultivation, and the large crops sometimes obtained, in my account of the Agricultural School at Glasnevin. In general, however, the crops are not large, not much exceeding two hundred and fifty bushels to the acre, which, though a respectable, is certainly not a great yield. Potatoes are raised largely for the market in some places; but in passing through the country, the extent of land under cultivation in potatoes appears comparatively small.

I cannot join with Cobbett in his anathemas upon potatoes, to which a learned agricultural professor here has lately added the force of his denunciations, which are likely to fall harmless under the power of habit and general taste. There certainly can be found, as common consent seems to have established, no more agreeable, and no more nutritious esculent than a well cooked potatoe; and under few crops will an acre of ground yield more food for animals. The disease which has prevailed in the potatoe—the ravages of which have been so extensive and alarming—will, it is hoped, prove only a temporary evil, or some effectual remedy against it be found. In Ireland, a large number of the population, amounting to millions, depend, almost exclusively, upon the potatoe for subsistence. The ordinary allowance to a working Irishman is, from fourteen to sixteen pounds of potatoes per day. It cannot be denied, however, in a moral view, that potatoes to the Irish are an equivocal good. In order to improvement, man requires a constant and severe stimulus to exertion. The necessities of men are the excitements to industry and enterprise, and very often the foundation of their virtues. But what hope can be entertained for the improvement of persons content to live upon the meanest fare, and in circumstances of destitution barely compatible with existence, and to go on and marry, and rear children, with no expectation or ambition beyond that of a mud cabin, a peat fire, and a potatoe diet?

Next to potatoes and turnips, beets occupy a principal place in English cultivation. Of beets, the field cultivation is limited to the mangel-wurzel. These are cultivated in rows, upon ridges, similar to the cultivation of turnips, about thirty inches apart; and though the seed is commonly dibbled in at six inches distance in the rows, the plants are thinned out to a distance of one foot. Deep cultivation is always strongly recommended for all tap-rooted plants. An eminent farmer in Northamptonshire, after having furrowed and manured the furrows for his mangel-wurzel, as the wheels of the cart and the trampling of the horses tend to harden the bottom of the furrow, before the land is turned back upon it in order to form

a ridge, passes down in the furrow with a miner, that he may loosen and deepen it. A *miner* is simply the colter of a plough, without the mould-board. He speaks of this as being attended with great advantage. No machine has yet been invented which may be safely trusted to drop the seed. A wheel with pegs of about two inches in length, and six inches apart, upon the outside of the wheel, which shall make holes in the ground as the wheel revolves, handles like those of a wheel-barrow being attached to it, is used to dibble the land, into which children, who follow, drop the seed, one being sufficient in each hole, as every capsule in fact contains four seeds. The seeds are then covered with the head of a rake or with the hand. The land between the rows should be kept loose by ploughing, and thrown upon the rows, but not upon the plants, whose nature it is to grow much out of ground. In the latter part of the season, the under leaves may be gathered and fed to milch cows, or sheep, or swine, with great advantage to the consumer, and where the crown is left unbroken and only the lower leaves taken, without injury to the producer.

Reports have been furnished me of crops of fifty-eight tons per acre, and in other cases, of forty-eight tons, and fifty-six tons, per acre; this, of course, after they were topped and cleaned. These, however, are very extraordinary crops, the common yield being about thirty tons. They are much valued for milch cows, and for fatting cattle. Experiments have been made to test the value of mangel-wurzel compared with Swede turnips in the fattening of cattle. The experiments which have come under my knowledge—the estimate of the increase of weight of the animals experimented upon having been made from external measurement, and not in scales—do not appear to me decisive, but only indicative of considerable superiority in fattening properties of the mangel-wurzel over the Swedes. The yield of mangel-wurzel, per acre, under good cultivation, is considerably greater. Caution is to be used in giving them to milch cows, as they are apt to produce scouring. From this effect I have suffered in the free use of them with my own cows. It is strongly advised, likewise, not to use them until the spring or late in the winter; and I have known farmers to keep them sound and fresh into August. They are considered as not unfavourable to wheat, which may be sowed after them. The seed of the beet should be well soaked before sowing; and it is advised, in the event of transplanting them to fill up vacancies, not to place the plant lower in the ground than it formerly stood, as otherwise, if planted to the top, it will send out shoots from the top, and become scraggy or forked.

Carrots are cultivated to some extent, and much valued. There is nothing, however, peculiar in the cultivation. The land should be deeply ploughed and highly manured. They are usually cultivated on a flat surface; but I am satisfied that the ridge cultivation at a distance of two feet, so as to plough between them, would be far preferable. The seed should be sprouted before sowing and mixed with sand, in order to avoid its being sown too thickly. If sowed on ridges, they will be much more easily cultivated and kept clean; and they should be thinned out to the distance of six inches apart. The Belgian white carrot has come greatly into favour in England. A distinguished farmer, in whose authority I place the utmost confidence, pronounces it as thirty per cent. more productive than the common carrots; and I met with an eminent farmer who had grown thirty-one tons seventeen hundred weight upon an acre, and whose crops averaged twenty-four tons per acre. Another farmer informed me, that he usually obtained twenty-five tons per acre. A farmer, at Birkenhead, near Liverpool, who is laying the foundation of one of the most splendid agricultural establishments in England, and whom I had the pleasure of visiting, obtained a crop of a hundred tons from three acres. Much of this was due to the liberal application of guano. Another farmer reports having grown upon four acres four thousand eight hundred bushels of the white carrot, or twelve hundred bushels per acre, which he fed to his horses, ten pounds each per day, and to his neat cattle, with very great advantage. A strong prejudice exists against the use of white carrots for horses, as injuring their eyes; and the farmer first mentioned above thinks it not without foundation, believing that his own horses had suffered from that cause.

With respect to the common red beet, or the sugar beet, and the parsnip, I have not seen them under field cultivation in England, though the parsnip is said to be largely cultivated, as feed for stock, in the channel islands. The sugar beet is reported to yield abundantly, and to furnish a more nutritious food, better for fattening, and for milch cows, than the mangel-wurzel; yet the former has not supplanted the latter. The Jerusalem artichoke is often served at table, and is approved by many as food for stock, but is not so palatable or so nutritious as the potatoe. It grows, however, without much care, and in almost any ground, besides continuing itself in the ground from year to year. Un-

der favourable circumstances, it is said to yield five hundred bushels to an acre,—a statement which I do not give from personal observation, nor receive without some distrust.—*Colman's Tour.*

For the Farmers' Cabinet.

Cause and Preventives of the Fly in Wheat.

Mr. Editor,—In the fall and spring of the year, when the young wheat is very succulent, if the soil contains very little alkali, the young plant is very apt to absorb much free carbonic acid. This carbonic acid, in its free state, when too abundant to be assimilated by the plant, unites chemically with the soft vegetable tissue, and forms a sweet substance, very pleasant to the taste of insects, and attracts them to the plant. They attack the wheat, and are charged with being the cause of the sickly and deformed state of the plant,—while the surplus carbonic acid was the first cause, and they only a secondary one. If, then, we would prevent the fly from attacking the wheat, we must apply to it such substances, as, while they render the juices unpleasant to the taste of the insect, also strengthen the plant. These two objects may be gained by applying alkalies—such as soda, potash, lime, &c.,—in the form of salt, ashes, lime, &c., to the plant at the time they are liable to be attacked. If we apply these substances early enough we may prevent the carbonic acid from doing injury; but we may apply these after the injury has been done, and the plant will absorb them and they will render its juices nauseous to the insects, and thus prevent their attacks. Charcoal is very useful to prevent the surplus carbonic acid from injuring the plant.

The salt should be applied at the rate of one bushel or less to the acre. The ashes and lime—fresh slacked—at the rate of five bushels or more to the acre. Each farmer's experience, however, with good judgment, are the best guides in these matters, as the circumstances differ so widely in different locations, soils, modes of culture, &c.

Chemico.

June 22nd, 1847.

Strawberries in Cincinnati.

The *Queen City* promises to become as famous for strawberries, as Newcastle is for coal. And five to ten cents a quart too! We have not seen a lot of passable ones in our market the present season, for less than twenty cents. Are there any means of ascertaining the amount sold in Philadelphia? Why do not our farmers and gardeners make them as cheap here as they are at Cincinnati? Surely it would be as profitable as growing potatoes at even a dollar a bushel.—Ed.

A Cincinnati paper states, that one day last week, no less than 502 bushels of strawberries were offered for sale in the markets of that city. Add the quantities left at the hotels and steamboats, and the aggregate would amount to 550 bushels. The price ranged from five to ten cents per quart. The Cincinnati Horticultural Society have agreed that "a premium of one hundred dollars be awarded during any strawberry season hereafter, for the production of a new seedling strawberry, superior in size to any now cultivated in the vicinity.

The following, says the Cincinnati Herald, shows the amount of strawberries sold in our markets since the present season has opened, copied from the daily record kept by a committee of the Society:

May 25th, 15 bushels; 26th, 20 bushels; 27th, 20 bushels; 28th, 40 bushels; 29th, 50 bushels; 31st, 50 bushels. June 1st, 296 bushels; 2nd, 250 bushels; 3rd, 50 bushels; 4th, 247 bushels; 5th, 489 bushels; 7th, 200 bushels; 8th, 514 bushels; 9th, 411 bushels; 10th, 237 bushels.

The actual amount brought in and delivered at other places than the markets, will increase the above, probably 20 per cent. At the end of the season, the committee will make a Report on the whole number brought into the city, including what has been sold to the Confectioners, Hotels, &c., as far as the latter fact can be ascertained. Of course, the above statement is incomplete, though correct, as far as it goes.

Fibrous Covering for Land.

Mr. G. Gurney observed that, "if a bush or other fibrous matter were left lying in a field of grass, the vegetation beneath it would soon be observed to be finer or fresher than that around it. This was a fact known to every one, but the agency by which this increase of growth was brought about, evidently involving some great and important but unknown principle, had never been investigated. Flags, rushes, straw, bushes, or, in short, any fibrous covering, would produce a similar effect. Reeds, or wheaten straw, applied over grass, at the rate of about a load to a load and a half per acre, would, in a short time, increase the quantity of grass to an incredible extent. The various grasses under it would be found to be healthy, and rapidly passing through the stages to maturity, some growing, some flowering, some seeding. Part of a field of grass placed under this operation for one month had increased in weight, over the re-

maining portion left uncovered, at the rate of nearly three to one. The green grass from the part untouched, cut at the end of the month, weighed two thousand two hundred and seven pounds per acre; that of the portion placed under the operation weighed five thousand eight hundred and seventy pounds per acre. The grass was weighed as it came from the scythe. During this period, there was not a drop of rain; and guano, nitrate of soda, lime, shell-sand, wood ashes, and other manures, tried against it, possibly from the drought, produced, during this period, no very visible action. In this experiment, the fibrous covering was laid on the 15th of April, and the grass cut and weighed the 30th of May. Half of a hay field was covered on the 2nd of May; and a month after, I had cut and weighed, respectively, the portions of the field covered and uncovered, and found that the one weighed three thousand four hundred and sixty pounds per acre, whilst the other weighed only nine hundred and seventy pounds. As to the length of the grasses in the respective pieces, the trefoil in one case measured three and one-half inches, whilst in the other it only measured an inch; clover six inches, in the other one and one-half." He found, on making the two samples of grass into hay, that the proportionate loss of weight was the same in each parcel, and the difference would be, that in the one case he should get three tons to an acre, and in the other only one. Another most important circumstance in the case was, that when "a certain quantity of stall dung would double the quantity of grass in a given time, when laid on in the usual way, that it would increase it six times, when properly treated with fibrous covering."

These are certainly very curious experiments, and they have been repeated successfully by various individuals. "For an individual to satisfy himself, a bundle of straw, say forty pounds, strewed lightly over two or three roods of growing grass, would in a very short time show the effect, when raked off. In the experiments made, all gave uniform results, when conducted fairly. Some used too much covering, but *generally too little.* All these experiments showed that the action was general; that the difference in increase of growth, in a given time, was in proportion to the natural fertility of the soil."

"The practical instructions for the use of fibrous covering are few, but essential to profitable results. Straw of wheat, oats, or rushes, is to be lightly and evenly laid over growing grass, in the proportion of about a ton to a ton and a half per acre. At the end of a fortnight, it must be raked up in heaps like hay-cocks, the grass eaten off by cattle, and the covering again relaid. This is necessary in the growing season, otherwise the herbage will grow through, by which the action will cease; the grass will also become entangled with the covering. If the land is good, the grass may generally be eaten off by cattle before the covering is relaid; if not, at the end of the next fortnight—more or less depending on the richness of the land, the season, and the weather—it should be done, and the covering relaid again; and repeated at about these periods through the season. If straw be the material used, it will last through the whole summer. In the autumn it is the practice to rake it off when dry, carry it away, and stack it for winter litter. Ground under the action of fibrous covering, we find from our returns, will keep three times the quantity of cattle as ground not so treated. This experience seems in keeping with our experiments on weight and measure, of the produce thus obtained."—*Colman's Tour.*

WHITEWASH.—In many cases, whitewash is preferable to paint, and is one of the most excellent things in the world to preserve cleanliness and health. The walls of cellars ought to have a coat, and a liberal one, of whitewash applied every spring; so should the interior of all your out buildings, hog house, wood shed, stable and all. Fences, when not painted, should also be accommodated with a coat of it. By carefully whitewashing the walls of your cellar, and applying a good coat overhead, with a liberal sprinkling of caustic lime over the bottom as soon as your vegetables are removed in the spring, you secure exemption from many evils, not the least of which is the preservation of a pure atmosphere during summer, and its invariable attendant, HEALTH. The cost of whitewashing is but little, as the operation can be performed in dull weather, when the help employed on the farm or about the buildings, will be likely to be unemployed in other duties, while the materials and implements, from their extreme cheapness, are scarcely worthy of being taken into the account.—*Maine Farmer.*

So great is the influence of even simple food on the nerves after protracted abstinence, that intoxication has occurred from the stimulus of oysters alone; and Dr. Beddoes states that persons who have been shut up in a coal work from the falling in of the sides of a pit, and have had nothing to eat for four or five days, will be as much intoxicated by a basin of broth, as an ordinary person by three or four quarts of strong beer.

Digestion.

Hunger and thirst are the preliminary steps to digestion; they constitute a law implanted in the animal economy, for the purpose of inducing the living being to take such nourishment as is required to sustain that waste of the system which animated nature is continually undergoing. If the dictates of the sensation of hunger and thirst are rationally obeyed, satisfaction and healthy digestion are the result; but if, on the contrary, these important sensations are neglected, weakness and disease must necessarily ensue. Appetite, or, in its more advanced stage, hunger, teaches animals to seek for solid food, and thirst suggests the propriety of rendering the solid mass more pulpy and dilute by the employment of drink. Experience and reason, both in man and brutes, must in some measure direct the selection of the proper objects to be employed for these purposes. I was some years ago consulted by a worthy individual with regard to the propriety of fasting as a religious observance. I told him that the sensation of hunger and thirst constituted a most important law in the animal economy, destined by the Creator for the most beneficent purposes; that it ought to be obeyed as a matter of duty, and that if infringed, some prejudicial result would necessarily ensue; because it is no argument in favour of any such experiment upon human life that existence does not terminate upon its adoption, or that the symptoms of some frightful disease are not instantly ushered in. The seeds of future mischief may be sown by one experiment, and may only lie dormant until a second or succeeding infringement shall cause them to spring forth into living activity. In the course of extensive series of experiments upon cows, it was found that, when they were not supplied with sufficient food during one day, the product of milk was a day or two in reaching its former average; thus demonstrating that the animal had been weakened by the abstinence, inasmuch as it took a longer period to reach its ordinary condition than was required to reduce it. The milk, in such an experiment, corresponds with the muscle and fatty portions of the body of animals which do not supply milk; hence abstinence in all animals must be followed by a diminution of the weight of the body. It has been well remarked by Liebig, that "in the process of starvation it is not only the fat which disappears, but also by degrees all such of the solids as are capable of being dissolved. In the wasted bodies of those who have suffered starvation, the muscles are shrunk and unnaturally soft, and have lost their contractility: all these parts of the body which were capable of entering into the state of motion have served to protect the remainder of the frame from the destructive influence of the atmosphere." There is no difference in this respect between one set of animals and another. Civilized and savage men, wild and domestic animals, must all be classed under the same category.

In the human species a morsel of food is grasped by the front teeth of both jaws, which are each supplied with sixteen teeth, making thirty-two in all. In those animals which chew the cud, as they have only one row of teeth the food is less firmly grasped by the jaws, and there is, therefore, a greater necessity that it should be of a soft and pliable nature. By the assistance of the lips, jaws, tongue, and auxiliary muscles, the food is conveyed into the cavity of the mouth, and by the aid of the tongue and lateral motion of the mouth it is placed between the opposing jaws, where it is masticated or ground to a proper consistence. But the action of the jaws in grinding the morsel introduced between them at the same time elicits the compressing power of the muscles of the cheek upon the parotid gland, which is situated in man in front of the ear, and expels its secreted fluid, the saliva, into the mouth, to assist in comminuting the nutritive matter. Besides this mechanical action, there is, however, a nervous sympathy called into operation. The masticated matter acts upon the tongue and adjacent parts, inducing a sympathy with the glands placed under the tongue, and causes them to pour out their copious contents. The object of mastication or chewing is, therefore, to reduce the food to such a consistence as shall fit it for its reception and proper digestion in the stomach. This is well illustrated in the instance of animals which are not supplied with teeth.

The common fowl, for example, is destitute of these grinding apparatus; but it has a muscular mechanism, termed the gizzard, which powerfully compresses the introduced food, and by means of pebbles and stones, which are a necessary article of food with the class of animals referred to, an artificial substitute for the teeth is provided. In graminivorous animals, we shall find that a substitute for the second row of teeth is provided in the operation of rumination, or chewing the cud. From attention to these facts, therefore, we are taught that the preparatory step of digestion consists in the fine division of solid food by means of the apparatus set apart in the mouth for this purpose, and its mixture with a certain

amount of fluid saliva to render it more dilute.

The importance of the proper grinding of the food, and of rendering it as soluble as possible, can be well appreciated by such individuals as have been the subjects of indigestion, from the eructation of morsels of food, of gases, and of acid liquors. It is scarcely necessary to remark, that similar rules are applicable to the inferior animals, and more particularly in the state of confinement to which most of them are more or less subjected, when they are made to minister to the wants of the human species. —*Thomson's Researches on the Food of Animals.*

Mt. Airy Agricultural College.

To the Editor of the Farmers' Cabinet:

Dear Sir,—As my circular in reference to an Agricultural College appeared first in the Cabinet, I deem it but proper that the response, or success it met with from the public, should also be first communicated through the same channel.

It will be recollected, that my zeal for the promotion of agriculture, led me to propose, in February last, the founding of an Agricultural College, on a liberal scale, at Mt. Airy, provided the public would encourage the effort so far, as to furnish for certain, eighty students, by the 1st of July, to begin with.

The patronage required was very moderate, in view of the expense to be incurred in carrying on an Institution such as I had contemplated—yet I was willing to risk the outlay in material, Professors' salaries, &c, to be met by an increase in students, or from my own private purse. I am, however, relieved from further speculation on this head, as the students offering to enter, up to the time limited, fall far short of the number required by the terms of my circular—and I am therefore constrained to announce to the public, that the College cannot go into operation. Thus my darling scheme of promoting the interests of agriculture and horticulture, is for the present suspended, if not altogether abandoned.

To you, and the gentlemen conducting the Agricultural press, and Editors in general, who entered into my views with such disinterested zeal, and manifested such personal kindness to myself, I return my grateful acknowledgments; and should they copy this, or inform their readers that my humble attempt has thus far proved abortive, they would add to the obligation their courtesies have already imposed upon me.

To the gentlemen who forwarded the names of their sons, to be enrolled as students, and others, whose spirited and patriotic sympathies were enlisted in the cause, I cannot but express my most unfeigned friendship and profound respect—tendering to them in the same spirit their offering was made, my best assistance, should any of them essay, as I have done, to promote and elevate the character of the agriculture of the country.

Respectfully yours,

James Gowen.

Mt. Airy, Philadelphia, July 5th, 1847.

The Daisy.

BY JOHN MASON GOOD.

Not worlds on worlds, in phalanx deep,
Need we to tell a God is here:
The daisy, fresh from winter's sleep,
Tells of his hand in lines as clear.

What power, but His who arched the skies,
And poured the day-spring's purple flood,
Wondrous alike in all it tries,
Could rear the daisy's curious bud;

Mould its green cup, its wiry stem,
Its fringed border nicely spin,
And cut the gold embossed gem,
That set in silver, gleams within;

And fling it with a hand so free,
O'er hill, and dale, and desert sod,
That man, where'er he walks, may see,
In every step, the stamp of God!

Productive Orchard.—A correspondent of the Prairie Farmer, says that an orchard of 300 apple trees, owned by Elijah Capps, of Fulton Co., Illinois, nineteen or twenty years old from the seed, produces now from twenty to forty bushels per tree. Much of this success may doubtless be ascribed to the new and fertile soil of that country; but it might be nearly approximated further east, by deep, rich, highly manured soil, and constant and mellow cultivation.

Plough Making.—It is curious to trace the progress of plough making in England. Those of the early cultivators, were of necessity rude and imperfect, for in those days the ploughman made his own plough. A law of the early Britons in fact, directed that no one should guide a plough until he was able to make one. The driver was by the same law, to make the traces by which it was drawn, and these were to be formed of withes of twisted willow. The early Saxons used wheels to their ploughs.

For the Farmers' Cabinet.

Put the Tools in their proper places.

There are probably very few, if any, men who have had the charge of farms, with men and boys under their direction, who have not frequently experienced vexatious interruptions in their business for want of a tool, which at the moment it was needed, could not be found. It had probably been used by some one of the family, left where it was used, and forgotten. Those farmers who require their domestics to deposit the tools which they use, in some definite place, whenever they have done with them, and exact invariable attention to this rule, may be deemed punctilious and rigid, but they often save themselves and others no trifling share of perplexity. A simple instance will illustrate the case—at one time, when I had a large family about me, some vegetables, perhaps turnips, which were buried in the garden, and then covered with a hard frozen crust, were wanted for dinner: to break this crust a grubbing-hoe was required. It was known there was one about the premises; but nobody could tell where it was. After an extended search, the attempt to find the grubbing-hoe was abandoned as hopeless, and other means of supplying the dinner were adopted. Some time, probably several weeks afterwards, in walking over one of the fields, the hoe was found lying on the ground, and it was discovered, that a hired man who had been directed to spread some lime there, had taken it with him to reduce the lime into smaller fragments; and when he was done with it, thrown it down, and forgotten it.

An old man once told me, that when he was a boy, he was engaged on one occasion, in company with a hired man in chopping wood; and in the evening, they concluded that as they expected to be similarly employed on the next day, they might save themselves the trouble of carrying their axes home with them. They therefore hid them in the woods and walked home. His grandfather, with whom he lived, saw them returning, but made no observation till they were just about retiring to bed; he then inquired whether they had brought the axes home; and upon receiving an answer in the negative, told them they must go and bring them. They asked if they were not to return to their former employment in the morning? but he told them they did not know that they would live till morning, and if they should die during the night, nobody would know where to look for the axes. His orders were therefore peremptory, and they were obliged to repair in the night to the woods and bring the axes home. This taught the boy a lesson which he did not quickly forget; and very probably saved him more trouble in after life, than this nocturnal journey to the woods.

It is said, that Dean Swift was very particular to have the doors shut by those who entered or left the room. A favourite maid on one occasion, asking permission to attend a marriage at a distance, he not only granted her request, but offered to send a man to wait on her. Pleased with this kindness, she hastily withdrew and forgot to close the door after her. When she and her waiter had been some time gone, a servant was despatched in haste to demand their return. When he overtook them they were several miles on the way, but the order being peremptory, they reluctantly returned home: when the maid presented herself before the Dean and inquired his pleasure, he told her, he wished her to shut the door after her. This piece of instruction we may readily conceive, required no repetition. L.

Remedy for the Yellows.

It may seem to many persons a difficult task to rid ourselves of so wide spread a malady as this, yet we are confident that a little perseverance and care will certainly accomplish it. In the present uncertainty with regard to its contagious nature, it is much the wisest course to reject "the benefit of the doubt," and act upon the principle that it is so. We know at the present moment several gardens, where the trees are maintained in good health by immediately rooting out and destroying every tree as soon as it shows marked symptoms of the malady.

1. We would therefore commence by exterminating, root and branch, every tree which has the yellows. And another tree should not be planted in the same spot without a lapse of several years, or a thorough removal of the soil.

2. The utmost care should be taken to select seeds for planting from perfectly healthy trees. Nurserymen to secure this should gather them from the latest ripening varieties, or procure them from districts of the country where the disease is not known.

3. So far we have aimed only at procuring a healthy stock of trees. The most important matter remains to be stated—*how to preserve them in a healthy state.*

The answer to this is emphatically as follows: *pursue steadily, from the first bearing year, the shortening-in system of pruning.* This will at once secure your trees against the possibility of over-bearing, and

its consequences, and maintains them in vigor and productiveness for a long time.* It will, in short, effectually prevent the yellows where it does not already exist in the tree. To whoever will follow these precautions, pursue this mode of cultivation, and adopt at the same time the remedy for the borer, already suggested, we will confidently insure healthy, vigorous, long-lived trees, and the finest fruit. Will any reasonable man say that so fine a fruit as the peach does not fully merit them?

Whether the system of shortening-in, and careful culture, will prevent the breaking out of the yellows when constitutionally *latent* in the tree we will not yet undertake to say. A few more experiments will prove this. In slight cases of the disease we believe that it may. Of one thing, however, we are certain; it has hitherto failed entirely to reclaim trees in which the malady had once broken out. Neither do we know of any well attested case of its cure, after this stage, by any means whatever.† Such cases have indeed been reported to us, and published in the journals, but, where investigated, they have proved to have been trees suffering by the effects of the *borer* only.

A planter of peach trees must, even with care, expect to see a few cases of yellows occasionally appear. The malady is too widely extended to be immediately vanquished. Occasionally, trees having the constitutional taint will show themselves where least suspected, but when the peach is once properly cultivated, these will every day become more rare until the original health and longevity of this fruit tree is again established.

The Curl is the name commonly given to a malady which often attacks the leaves of the peach tree. It usually appears in the months of May or June. The leaves curl up, become thickened and swollen, with hollows on the under, and reddish swellings on the upper side, and finally, after two or three weeks, fall off. They are then succeeded by a new, and healthy crop of foliage. This malady is caused by the punctures of very minute aphides, or plant lice—*Aphis Persicæ?*—which attack the under side of the leaves. Although it does not appear materially to injure either the tree or the crop, yet it greatly disfigures it for a time. In orchards, perhaps few persons will trouble themselves to destroy the insect, but in gardens, it is much better to do so. A mixture of whale oil, soap or strong soft soap and water, with some tobacco stems boiled in it, and the whole applied to the branches from below, with a syringe or garden engine, will soon rid the tree of the insects for one or more years. It should be done when the leaves are a third grown, and will seldom need repeating the same season.—*Downing's Fruits and Fruit Trees.*

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* The following remarks, directly in point, are from Loudon's last work. "The effect of shortening the shoots of the peach is not merely to throw more sap into the fruit, but to add vigor to the tree generally, by increasing the power of the roots relatively to the branches. The peach being a short-lived tree, *it has been justly remarked by Mr. Thompson, were it allowed to expend all its accumulated sap every year, it would soon exhaust itself and die of old age.*" Suburban Horticulturist.

† All the specific applications to the root of such substances as salt, ley, brine, saltpetre, urine, &c., recommended for this disease, are founded on their good effects when applied against the *borer*. They have not been found of any value for the yellows.

Fruit and Vegetable Preserver.

HAVING examined Kephart's Patent Fruit and Vegetable Preserver, established by Messrs. Flack, Thompson & Brother, near Fairmount, and noticed its effect on a variety of fruits, vegetables, flowers, and provisions, and having ascertained the temperature and hygrometric state of the air within it—the undersigned has become satisfied of the great utility of this plan of preserving these and similar articles from decay.

By removing the most efficient causes of decomposition, the apparatus secures to every season those delicacies which ordinarily can be obtained in perfection only for a very brief period.

This apparatus commends itself to families and to dealers in fruits and vegetables, as a repository where articles may be safely kept for a long time, in a state of freshness and purity. WALTER R. JOHNSON.

Philadelphia, June 21st, 1847.

The above notice of Kephart's Patent Fruit and Vegetable Preserver, by Professor Johnson of this city, will carry with it great weight wherever it is read, from the high estimation in which he is held by scientific men, as a chemist of the first order—and from having done so much towards bringing the practical application of chemistry to bear upon the agricultural interests of the country. In addition, we send you an extract from the minutes of the Horticultural Society of this city.

At a stated meeting of the Pennsylvania Horticultural Society, held the 15th ultimo: "The Committee on Fruits reported that they have examined and tasted of the apples which have been preserved by the Vegetable

and Fruit Preserver invented by Mr. Kephart, comprising five varieties, viz: Cider, Bellflower, Favourite, Germantown, and Newtown pippins, and deposited by Flack, Thompson & Brother; and we recommend a premium of three dollars for such fine specimens of fruit so beautifully preserved at so late a period."

Yours, &c., F.

Philadelphia, July 3rd.

The Hessian Fly.

Dr. Fitch, of Salem, N. Y. closes his very interesting inquiry into the history, character, transformations, and habits of this farfamed depredator, with the following remarks. His patient investigations seem to have fairly led him to the conclusions here announced, and it is altogether probable that the ravages of this insect will remain, as they have heretofore been, entirely beyond our control, further than may result from a choice of ground and time of sowing. The efficacy, however, of late sowing, we believe to be extremely problematical.—Ed.

The Hessian fly—*Cecidomyia destructor* of Say, is a European insect, and has been detected in Germany, France, Switzerland and Italy, where it at times commits severe depredations upon the wheat crops. Its ravages are alluded to so far back as the year 1732. It was brought to this country, probably in some straw used in package by the Hessian soldiers, who landed on Staten and the west end of Long Island, August 1776, but did not become so multiplied as severely to injure the crops in that neighbourhood, until 1779. From thence as a central point, it gradually extended over the country in all directions, advancing at the rate of ten to twenty miles a year. Most of the wheat crops were wholly destroyed by it within a year or two of its first arrival at a given place, and its depredations commonly continued for several years, when they would nearly or quite cease; its parasitic insect enemies probably increasing to such an extent as almost to exterminate it. It is frequently reappearing in excessive numbers in one and another district of our country, and in addition to wheat, injures also barley and rye.

There are two generations of this insect annually. The eggs resemble minute reddish grains, and are laid in the creases of the upper surface of the leaf, when the wheat is but a few inches high, mostly in the month of September. These hatch in about a week, and the worm crawls down the sheath of the leaf to its base, just below the surface of the ground, where it remains, subsisting upon the juices of the plant, without wounding it, but causing it to turn yellow and die. It is a small white maggot, and attains its growth in about six weeks. It then changes to a flax seed like body, within which the worm becomes a pupa the following spring, and from this the fly is evolved in ten or twelve days. The fly closely resembles a musquitoe in its appearance, but is a third smaller, and has no bill for sucking blood; it is black, the joints of its body being slightly marked with reddish. It appears early in May, lays its eggs for another generation and soon perishes. The worms from these eggs nestle at the lower joints of the stalks, weakening them and causing them to bend and fall down from the weight of the head, so that towards harvest, an infested field looks as though cattle had passed through it.

Wheat can scarcely be grown except upon a fertile soil in those districts where this insect is abundant. The sowing should be deferred until about the last of September, the season then being past when the fly usually deposits its eggs. If at any time in autumn the eggs of the insect are observed to be profusely deposited upon the leaves, the crop should be speedily grazed down by sheep and other stock, or if this cannot be done, a heavy roller should be passed over it, that as many of the eggs as possible may be crushed or dislodged thereby. One or the other of the same measures should also be resorted to in the spring, if the same contingency occurs; or if the worms are at a later date discovered to be numerous at the first and second joints of the young stalks, the experiment may be tried of mowing as close down as possible, the most infested portion of the field. Where the soil is of but medium fertility, a resort to some of the hardier varieties of wheat, which are known to be in a measure fly proof, may be advisable.

Value of Land.

You ask why land in Maryland, Virginia and South Carolina has so little value when compared with that of England or of France. To obtain an answer to this question we must first determine what is the cause of value in land. Of itself it certainly has none, as can be seen in the fact that thousands and tens of thousands of acres of the most fertile lands in Texas have been given to individuals on condition of settlement, and that when partially settled they could not be exchanged for half as much as they had cost. Such was the case with those granted to William Penn, and to all others of the early settlers of these United States. The lands of Iowa and Wisconsin have, in part, attained a value of $1 25 per acre, because of a great expen-

diture of capital in the formation of roads and canals leading from the lakes to market, but they are in many cases dearer, fertile as they are, at that price, than lands in Pennsylvania or New York at $80 to $100 per acre. Clear and enclose them, and give them roads and canals, and they will gradually acquire farther value, rising with the growth of wealth and population, *but never equal in amount to that of the labour that has been expended upon them*—a fact universally true, and carrying with it abundant evidence that land owes all its value to the labour applied to its improvements.*

Men who are willing to work seek Illinois, Wisconsin and Iowa, and each takes a piece of land that he is to render valuable by means of his labour, and that constitutes a sort of little savings box, in which he deposits all his wages over and above what is absolutely necessary for the support of himself and his family, as well as all the spare hours and half hours that would otherwise be unemployed. Every additional deposit therein tends, as with children who have penny-boxes, to increase his desire of accumulation, and to increase the habit of industry and economy. With the growth of population, the number of these little savings banks is steadily increasing, and by degrees a wealthy community arises, the members of which, by combining their means, are enabled to create money-shops, at which poor but honest and industrious men can obtain loans, while applying other portions of those means to the construction of turnpike roads, and ultimately railroads or canals. Wealth attracts wealth; and every new house, or town, or city, or road, whether of stone or of iron, tends to bring new labourers and to produce new divisions of land, new houses, and new savings boxes, and to cause the construction of new roads and canals. In the South these little savings boxes have no existence. The labourer has no property, and has no inducement to exertion, and his master has no economy. The land is exhausted, and deteriorates in value until at length both labourer and employer are compelled, if they would continue to live, to run away from it. In the first case we see the attractive power of wealth, while the second exhibits the repulsive power of constantly increasing poverty. Population diminishes, and land loses the little value it once possessed.

The people of the South burn the candle at both ends. They offer no inducement to economy or exertion on the part of those who labour, and they despise labour too much to acquire, themselves, the habit of employment, by aid of which they would become economical. In New England, all work and all spend liberally in proportion to their means; but there is very little waste of either labour or capital. The results of these different modes of action are widely different. The Southern planter is like the elephant, who leaves behind him scarcely any record of his existence; while the Yankee resembles the coral insect, whose labours and habits of association are attested by the formation of extensive islands destined, perhaps, at some future time to be combined, by the farther labours of these industrious creatures, into a vast southern continent. Were the people, *white and black*, of South Carolina swept away, what would remain to give value to the lands? Almost nothing! Compare, I pray you, the condition in which their successors would stand, with that of an equal number coming at once into possession of Massachusetts, with its towns and cities, its factories and ships, its turnpikes and railroads, and then answer for yourself the question "Why it is that land in the South is so nearly worthless?"

Mr. Calhoun holds that South Carolina exhibits to the world a model of society the most perfect that exists. If other people thought so, there would be an influx of population and of wealth. *If his countrymen thought so themselves they would not run away from it as they do.* If it were really so, there would be a gradual diminution in the size of farms or plantations, and an increase in the number and quality of houses, whereas the present tendency is directly the reverse. If they wish to continue their society in its present state of perfection, they must resign themselves to constantly increasing depopulation and poverty. If, on the contrary, they desire their lands to become valuable, they must make it the interest of the labourer to work and to economize, by securing to him the enjoyment of the results. They must teach *the people* to make saving funds by aid of which, eventually, railroads and canals will be constructed; and nothing will be done to render pro-

* The United States are the largest landholders in the world, and they obtain their land on the lowest terms. Nevertheless, they would be ruined by the ownership were it not for their entire exemption from contributions, in the form of taxes, toward the improvement of their own property. They sell the best lands, and the purchasers pay the taxes thereon for making roads and building court-houses, while making private contributions for churches, &c., &c., and thus the second, and third, and fourth qualities gradually acquire value equal to $1 25 per acre, and are sold. But for this, the public lands would bankrupt the Treasury, although obtained originally for almost nothing.

perty valuable until *the whole people* shall have acquired an interest in exerting themselves for the accomplishment of that object. When this shall come to be done, wealth and population will increase and emigration will diminish; but until it shall be done, the former will diminish and the latter will increase, as will be proved by every day's further experience. The sooner they satisfy themselves that slavery, although bad for the slave, is worse for the master, and adopt measures for *permitting** the gradual extinction of the system, the sooner will land acquire value; but until that time shall come, the tendency will be rather downward than upward.—*Farmers' Library.*

A Visit to Virginia.

A writer in the *National Standard* says, "We called upon the late President, Mr. Tyler, residing on the north side of James River, about thirty miles below Richmond. To say he is a good cultivator would be small praise. He informed us that when he moved on his farm, three years since, a field of wheat of two hundred acres, which he showed us, would not produce more than the seed, but is now waving with a crop of twenty bushels to the acre. The dressing he applied to his land was shell marl, together with straw and other manure, made on the farm. The marl costs three cents per bushel, delivered on the farm. It abounds in sufficient quantities to last for many years. Ten or fifteen miles above the ex-President's, on the same side of the river, is the family seat of the lamented Harrison, also in a high state of cultivation, and perhaps one of the most eligible situations on the James River. From Mr. Tyler's we proceeded to the estate of Robert B. Bolling, Esq, at a distance of ten miles. We there found farming conducted on a gigantic scale, such as had not entered our imagination. He went with us through his field of wheat, which contained *nine hundred acres!* The prospect for a crop was very fine, and we supposed he would have thirty bushels to the acre. He next showed us his grass field, which contained one thousand acres. Owing to the drought it was not as good as expected, but we thought as good as any of ours. His corn, which looked well, though small in consequence of the cold, amounted to near seven hundred acres. The oats, owing to the drought, were backward. The number of acres in oats, I think he said, was three hundred. His entire plantation contained *seven thousand acres of land!* The timber, consisting of white and black oak and pine, is very large except the second growth. He uses lime from the North River, which costs him six cents per bushel, together with straw, which he spreads over his land in the fall and winter—ploughs under, and then dresses with lime. This mode has brought his land to a high state of cultivation. His land a few years back was very poor."

Salem county, June 24th, 1847.

* I say "permitting," because I would desire only to see the majority of the people of the South granting to the minority *the right to do what they like with their own*, and emancipate them if so disposed. I have no desire to see any interference with the right of property.

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

Philadelphia, Seventh Month, 1847.

The *Delaware State Journal* of the 11th ult. says, that the Prices' have purchased and ground at their mills on the Brandywine, this season, 950,000 bushels corn, and 200,000 bushels of wheat.—This, we think, is no trifling business.

It is stated in the *Journal of Commerce*, that a farmer in Bucks County, who lives on the road from Philadelphia to New York, has for several years kept a memorandum of the number of cattle passing his door from the West. The number has varied from 20,000 to 25,000, the former number being about the average. Most of them are from Ohio and Kentucky.

Our readers will observe from the letter of James Gowen, on page 377, that the number of students offering, is not sufficient to warrant him in making decided arrangements for opening his Agricultural College, this coming autumn, as he had contemplated. This we sincerely regret, as we have no doubt his enterprise, and industry, and capital, and good judgement, all combined with an enthusiastic desire to promote the interests of his favorite pursuit, must have resulted in the establishment of a noble institution, whose beneficial influences would have been widely disseminated.

Through the politeness of B. P. Johnson, Secretary of the New York State Agricultural Society, we are in the receipt of the sixth volume of the Society's Transactions; a work of more than 700 octavo pages, and embracing a vast amount of valuable matter, connected with the farming interests of the State, as well as much of a general character.

Since our last number was issued, the price of bread stuffs has greatly declined. The reports from Europe—England more particularly—are full of promise for the coming crops of grain. Of the potatoe, accounts are contradictory. It was, perhaps, at our last advices from Ireland premature to form a decided opinion. Wheat flour is now from $5 50 to $6 50, and corn 70 cents to 80 cents, in this market.

KEPHART'S PATENT

Fruit and Vegetable Preserver.

An admirable invention, by which fruits, vegetables, &c., viz. oranges, lemons, apples, pears, peaches, &c.—potatoes, green corn, melons, &c., can be kept as long as desirable with all their natural juices and sweetness. Also, butter, eggs and bacon can be kept throughout the year, fresh and sweet, at an expense not greater than in an ordinary warehouse in the city. A full description will be found in the June number of the Cabinet.

The undersigned having purchased the Patent-right for the United States, except the states of New Jersey, Delaware and Maryland, and the cities of New York and St. Louis, offer for sale Patent rights for the construction of the PRESERVER, by states, counties or individual rights, upon terms that will induce all interested in the preservation of the above named articles to purchase rights and construct houses.

FLACK, THOMPSON & BROTHER,
Coates Street wharf, near Fairmount.

All communications will receive prompt attention, if addressed either to PETER KEPHART,
Western Hotel, Baltimore, Md.
Or to FLACK, THOMPSON & BROTHER,
Spring Garden P. O. Philadelphia.

July 15th, 1847.

FOR SALE,

AT D. O. PROUTY'S

AGRICULTURAL WAREHOUSE,

No. 194½ Market Street, Philadelphia,

Corn-Shellers in great variety, price from $1 50 to $50 each; Hovey's Patent Hay, Straw, and Corn-stalk Cutters; Grant's Patent Fan Mills, for chaffing and screening wheat at one operation, warranted to take out cockle, cheat and smut. Also good Fans, for $14 to $18 each.

Whitman's Horse-powers and Threshing Machines, with Straw Carriers and Fan Mills attached; Spain's Improved Barrel Churns, the dashers of which may be taken out to clean. Cheese-presses, &c.; Centre-Draught, Self-sharpening, Right & Left-hand Ploughs, warranted to give satisfaction in their operation.

May 15th—tf.

SEED STORE,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Also, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1847. tf.

Agency for the Purchase & Sale of

IMPROVED BREEDS OF CATTLE & SHEEP.

THE subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, swine, poultry, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay.

AARON CLEMENT.

April 15th, 1847.

NEW

Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1846. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1847.—1y. R. BUIST.

COAL.

THE subscriber has made an arrangement for a constant supply of superior Lehigh and Schuylkill Coal—carefully prepared for family use, which he will furnish *at the usual cash prices*, on application at the office of the Farmers' Cabinet, where samples of the different kinds and sizes may be seen.

JOSIAH TATUM.

Philadelphia, Seventh month 15th, 1847.

COATES' SEED STORE,

No. 49 Market Street,

FRESH TIMOTHY SEED,

Of various qualities, from good common seed to the purest and finest that can be produced,

TOGETHER WITH A COMPLETE ASSORTMENT OF

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties,—Bird Seeds, &c.

JOS. P. H. COATES,
Successor to George M. Coates.

May 15th, 1847.

☞ SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

THE quantity of rain which fell in the 6th month, 1847, was a little more than three inches and a quarter.

3.30 in.

Penn. Hospital, 7th mo. 1st.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 10 vols.	8 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31½
BUISTS' ROSE MANUAL,	75
THOMAS' FRUIT CULTURIST,	50
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½
JOHNSON'S DICTIONARY OF MODERN GARDENING,	2 25

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

AFRICAN GUANO.

First quality African Guano, from the island of Ichaboe, warranted genuine. Also a few tons Peruvian

For sale by J. B. A. & S. ALLEN,
No. 7 South Wharves, 2nd Oil Store below Market street.

Philadelphia, March 17th, 1847.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, $2 00 per barrel, containing four bushels each, or 40 cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. We are now ready to supply any demand for turnips, buckwheat, &c.

JOSIAH TATUM.

Philada. 6th mo. 15th, 1847.

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THE FARMERS' CABINET,

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It is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, when they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For seven dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the 11th volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage.

Joseph Rakestraw, Printer.